

**DESCRIPTION OF *NEOCOLOCHELYNA HAKUSANA*, SP. NOV., AND ITS
LARVA (HYMENOPTERA: TENTHREDINIDAE) FROM JAPAN**

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Abstract.—The adult and larva of *Neocolochelyna hakusana*, sp. nov., from Honshu (Japan Sea coast), Japan, is described and illustrated. Larvae feed on *Actinidia arguta*. Life history notes are given.

Key Words: sawfly, *Neocolochelyna*, larva, food plant, *Actinidia arguta*, Japan

In late June of 1994, I found some adults of *Neocolochelyna* Malaise ovipositing in the leaves of *Actinidia arguta* Plauch on Mt. Hakusan, Ishikawa Prefecture, Japan, and captured three specimens. After comparing these specimens with *N. itoi* Takeuchi which occurs on the Pacific coast, I believe they represent a new species. I also found several larvae of this new species feeding on the leaves of *A. arguta*, and three larvae were collected for rearing in early July, 1994. This new species is described below, including description of the larva and biological notes.

KEY TO THE JAPANESE SPECIES

1. Female 2
- Male 3
2. Eye in dorsal view nearly as long as head behind the eyes (Fig. 1); lancet with 23 serrulae (Figs. 10 and 12) *hakusana* sp. nov.
- Eye in dorsal view slightly longer than head behind the eyes (ratio about 1.2:1.0); lancet with 25 serrulae (Figs. 11 and 13) *itoi* Takeuchi
3. Apical portion of subgenital plate slightly angulated (Fig. 14); apical portion of harpes rather bluntly rounded (Fig. 16); penis valve as in Fig. 18 *hakusana* sp. nov.
- Apical portion of subgenital plate rounded (Fig. 15); apical portion of harpes rather sharply rounded (Fig. 17); penis valve as in Fig. 19 *itoi* Takeuchi

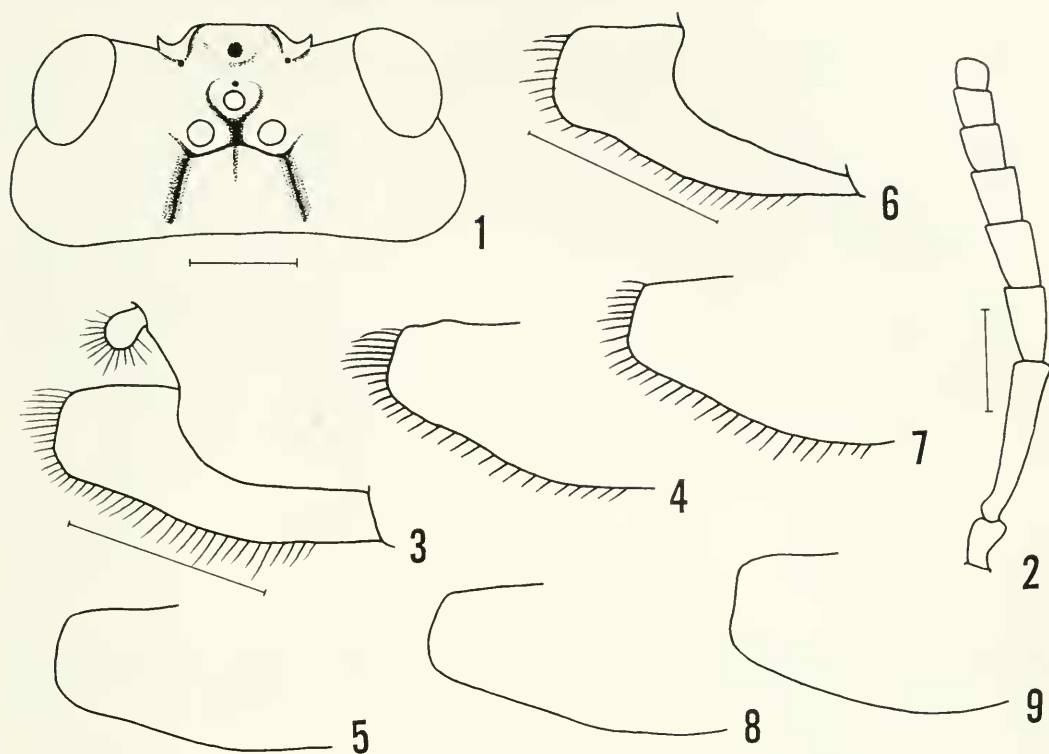
***Neocolochelyna hakusana* Togashi,
NEW SPECIES**

Figs. 1–5, 10, 12, 14, 16, 18

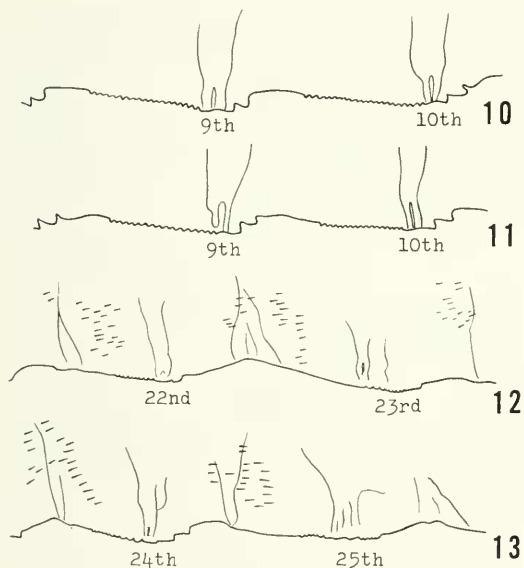
Female.—Length 17–19 mm. Robust species. Body ferruginous, with following parts dark brown to black: apical portion of mandible, lower portion of frons except for supraclypeal area, pronotum except for latero-posterior corners, triangular maculae on praescutum, posttergite, and posterior margin of propodeum. Antenna dark brown with basal three segments ferruginous. Legs: coxae and femora black, trochanters and tibiae dark brown, tarsi dirty yellow.

Head seen from above transverse, dilated behind eyes (Fig. 1); eye in dorsal view nearly as long as head behind eyes (Fig. 1); postocellar area with rather short median furrow (Fig. 1); OOL:POL:OCL = 2.8:1.0:3.3; postocellar, lateral, and interocellar furrows distinct (Fig. 1); circumocellar furrow distinct but lower portion interrupted (Fig. 1); antenna stout, nearly ½ as long as costa of forewing (or slightly longer than thorax, ratio about 1.0:0.9), relative lengths of segments about 2.2:1.0:3.6:1.8:1.4:1.4:1.1:0.7:0.8; pedicel longer than its apical width (ratio about 1.0:0.7).

Thorax: normal; hind basitarsus slightly



Figs. 1-9. 1-5. *Neocolochelyna hakusana* sp. nov. 1, head, dorsal view, 2, antenna, lateral view, except for scape, 3-5, sawsheath, lateral view. 6-9. Sawsheath of *N. itoi*, lateral view. Scale for 1-3 and 6: 1 mm.



Figs. 10-13. 10-11. 9th to 10th serrulae of lancet, 10, *N. hakusana* sp. nov., 11, *N. itoi*. 12-13. Basal two serrulae of lancet, 12, *N. hakusana* sp. nov. 13, *N. itoi*.

shorter than following 4 segments combined (ratio about 1.0:1.1-1.2).

Abdomen: sawsheath as in Figs. 3-5. Lancet with 23 serrulae (Figs. 10 and 12).

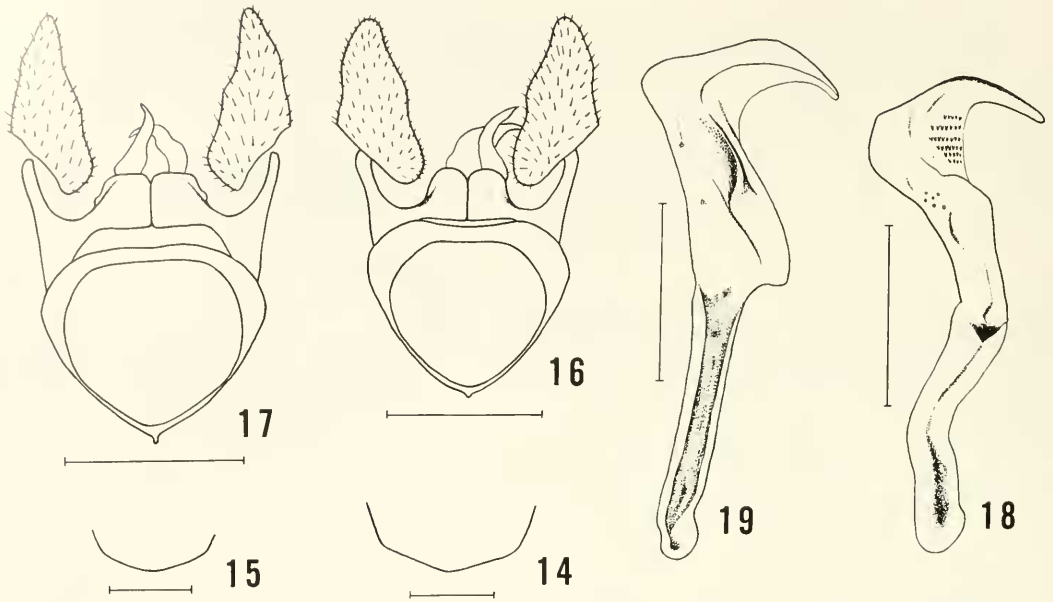
Punctuation. Head strongly, coarsely and reticulately punctured. Thorax strongly and reticulately punctured.

Male.—Length 17 mm. Coloration and structure similar to female. OOL:POL = 2.0:1.0; apical portion of subgenital plate slightly angulated (Fig. 14); apical portion of harpes rather bluntly rounded (Fig. 16); penis valve as in Fig. 18.

Distribution.—Japan (Japan Sea coast of Honshu)(Fig. 20).

Holotype: female, Mt. Hakusan (altitude about 1300 m), Ishikawa Pref., 30. VI. 1994, I. Togashi leg. Preserved in the collection of the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo.

Paratypes: one female and one male, Mt.



Figs. 14-19. 14-15. Apical margin of subgenital plate, 14, *N. hakusana* sp. nov. 15, *N. itoi*. 16-17. Male genitalia, ventral view, 16, *N. hakusana* sp. nov. 17, *N. itoi*. 18-19. Penis valve, lateral view, 18, *N. hakusana* sp. nov. 19, *N. itoi*. Scale for 14-17: 1 mm; scale for 18-19: 0.5 mm.

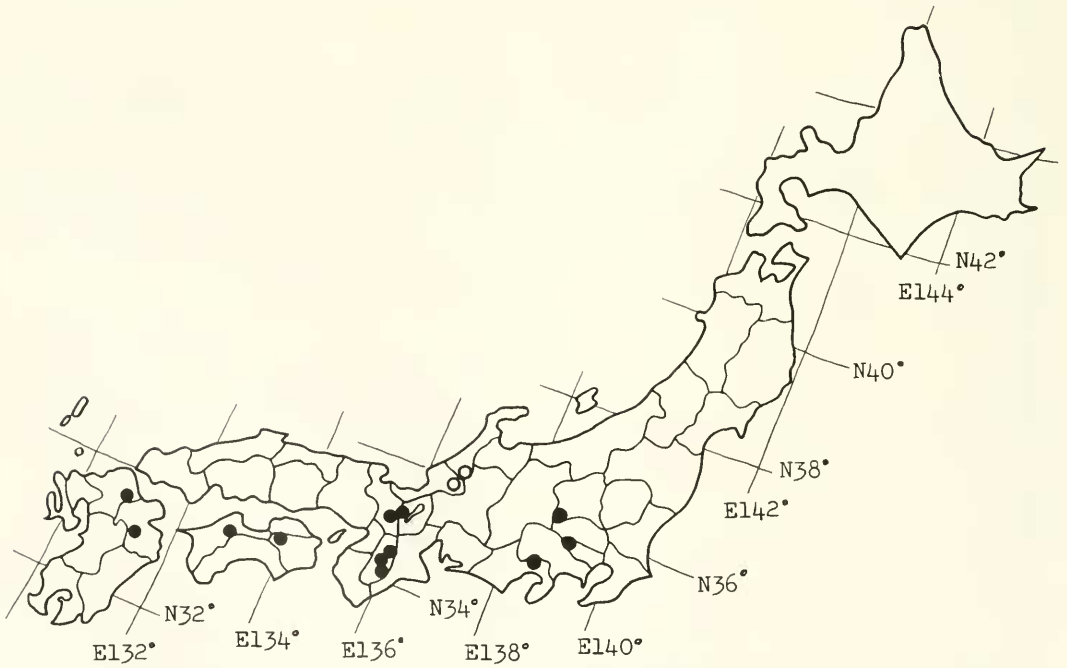
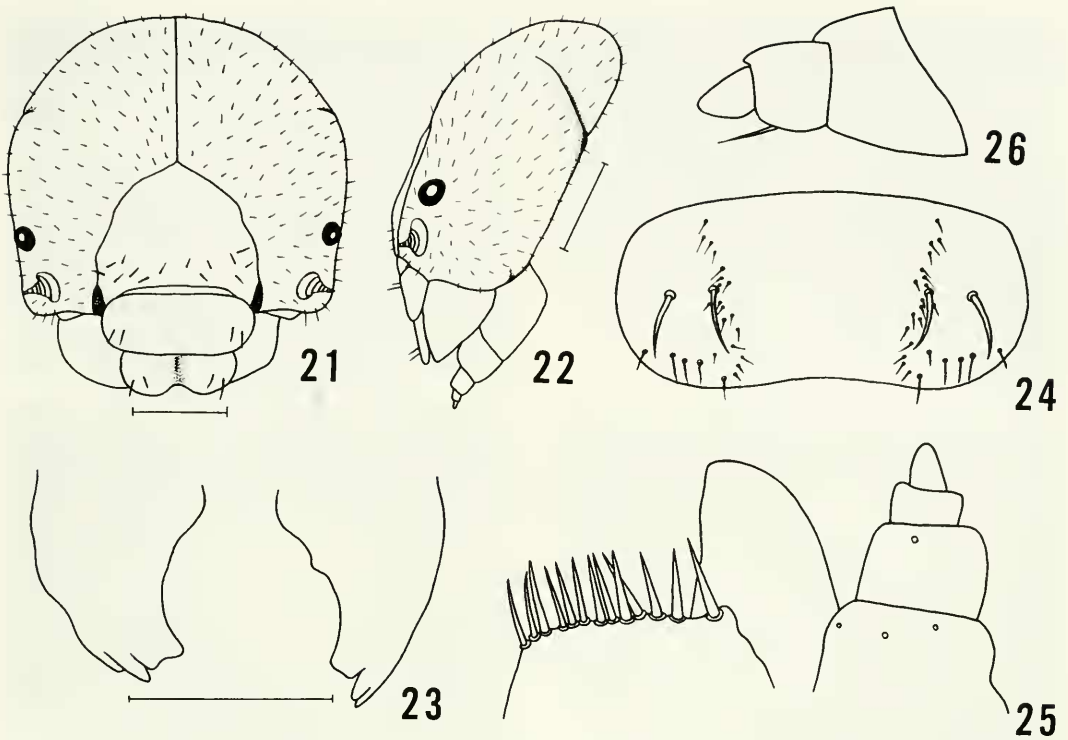


Fig. 20. Distributional map of *Neocolochelyna* spp. (Closed circles = *N. itoi*; open circles = *N. hakusana* sp. nov.)



Figs. 21–26. Larva of *N. hakusana* sp. nov. 21, head, frontal view, 22, head, lateral view, 23, mandibles, dorsal view, 24, labrum, 25, maxilla, 26, labial palpus. Scale for 21–23: 1 mm.

Arashima, Fukui Pref., 6. VI. 1982, T. Murota leg.; two females, same data as for holotype. One paratype female is deposited in the National Museum of Natural History, Washington, D.C., one paratype male is deposited in the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo, and others in my collection.

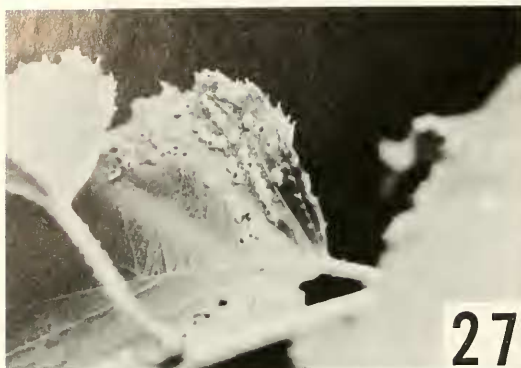
Remarks.—This new species is very closely allied to *N. itoi* in coloration and structure. However, it is distinguished from the latter by the ratio between OOL and POL (in *itoi*, the ratio between OOL and POL is about 1.7:1.0), by the ratio between the eye and the head behind the eyes (in *itoi*, the eye is slightly longer than the head behind the eyes, ratio about 1.2:1.0), by the number of serrulae of the lancet (in *itoi*, the number of serrulae is 25), and by the characters of the male genitalia (see Figs. 14–19).

DESCRIPTION OF LARVA OF *N. hakusana*,
NEW SPECIES
Figs. 21–30

Final instar.—Length 45–50 mm. Head pale yellow; eye and eye spot black; mandible black. Body uniformly milky white, covered with thin layer of white wax.

Head: vertical furrows distinct (Figs. 21 and 22); antenna 6-segmented; frons rather triangular in form, with 14 setae (Fig. 21); clypeus with 2 long setae (Fig. 21) on each side; labrum with shallow longitudinal furrow (Fig. 21) and with 2 long and 24 short setae on each side (Fig. 24); mandibles as in Fig. 23; maxillary palpus 3-segmented, relative lengths of segments about 1.0:0.7:1.8, galea digit-like (Fig. 25), lacinia with 13 strong setae (Fig. 25); labial palpus 3-segmented, relative lengths of segments about 1.0:1.4:1.7 (Fig. 26).

Prothorax 3 annulate; meso- and meta-



Figs. 27–30. Eggs and larvae of *N. hakusana* sp. nov. 27, foliage of *Actinidia arguta* with eggs in typical oviposition pattern, 28, resting colony of 1st to 2nd instar larvae, 29, resting colony of 3rd to 4th instar larvae, 30, final instar larva.

thorax each with 5-annulate; first to ninth abdominal segments each 7-annulate.

Food plant: *Actinidia arguta* Plauch.

Notes on biology.—This species is univoltine. Adults appeared in June in 1994 and the female oviposited in many rows along the edge of foliage (Fig. 27). Larvae were present from early July to early August. First to fourth instar larvae form a colony on the under side of the foliage when resting (Figs. 28 and 29). When eating, they go to the edge of the foliage. Final instar larvae are not found in a colony but feed singly. When mature, the larvae drop to the ground and penetrate into the soil where they pass the autumn and winter seasons.

Neocolochelyna itoi Takeuchi

Figs. 6–9, 11, 13, 15, 17, 19

Neocolochelyna itoi Takeuchi, 1951, p. 62;

Togashi, 1955, p. 154; Togashi, 1965, p.

246; Okutani, Tsuruta and Shinohara, 1992, p. 238.

Distribution.—Japan (Pacific coast of Honshu, Shikoku and Kyushu)(see Fig. 20).

Food plant.—*Actinidia arguta* Plauch.

Specimens examined.—Kyushu—1 ♀, Mt. Hikosan, Fukuoka, 23. V. 1950, N. Fukuohara; 2 ♀, Mt. Hikosan, Fukuoka, 3. VI. 1971, I. Togashi; 1 ♀, Mt. Kuju, Oita, 14–15. V. 1986, A. Shinohara. Shikoku—1 ♀, Mt. Ishizuchi, Ehime, 18. VI. 1978, N. Yashiro. Honshu—1 ♀ 1 ♂, Mt. Odaigahara, Nara, 28–29. V. 1977, K. Mizuno; 3 ♀ 5 ♂, Mts. Ohminesan, Nara, 7. VI. 1981, K. Mizuno; 1 ♀, Mt. Kunimiyama, Nara, 5. VI. 1988, K. Mizuno; 1 ♀, Ohara, Kyoto, 21. VI. 1984, T. Matsumoto; 1 ♀, Mt. Kurotakiyama, Gumma, 20. V. 1987, T. Matsumoto.

Supplemental description of adult.— OOL:POL:OCL = 1.7:1.0:2.1; eye in dorsal view slightly longer than head behind the eyes; sawsheath as in Figs. 6–9; lancet with 25 serrulae (Figs. 11 and 13). Male: apical portion of subgenital plate nearly rounded (Fig. 15); apical portion of harpes rather sharply rounded (Fig. 17); penis valve as in Fig. 19.

According to my observation at Mt. Hiko-san in 1971, female of this species oviposited in many rows along the edge of the foliage of *Actinidia arguta*. But I do not found the larvae.

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